

IO In an Unpredictable World

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It's time for military leaders and IO producers—EW's, LPSYOPers, CNO experts, and MILDECers—to change the way they plan and execute Information Operations efforts. In the IO field, a sizable portion of the effort is typically generated by a small number of very large IO initiatives rather than large numbers of small IO initiatives. Talented, experienced Operational military leaders along with the seasoned IO expert planners acknowledge that predicting the success of these large IO efforts is effectively a crapshoot. How else to explain why countering the adversary's use of the internet and other efforts have yet to actually deliver a single desired effect? Are they too ambitious or too large and cumbersome?

What should COCOM Commanders along with their IO experts do to improve their odds of success? The key is to understand that the outsize performance of our large IO efforts is not driven solely, or perhaps even primarily, by intrinsic attributes such as scope, range, sophistication, or even the seniority of the supporters. Rather, we may be seeing that much of the success of IO products derives from social influence – the effect that target individuals or groups have on one another's decisions. So in addition to anticipating which features individual IO targets might find themselves vulnerable to, leaders and IO planners should adopt strategies that take social influence into account.

A study conducted at Columbia University by Matthew Salganik, Peter Sheridan Dodds, and Duncan J. Watts, and published in the February 10, 2006, issue of *Science*, sheds light on the role that social influence plays in driving aggregate consumer demand. More than 14,000 participants were recruited through the teen network site Bolt, and the impact of social influence on their choice of songs to download was tested. After seeing a selection of 48 digital songs by unknown bands displayed on a Web page, participants were asked to choose songs to listen to and then allowed to download the ones they liked. As they arrived at the site, they were randomly allocated to one of two experimental conditions: “independent,” in which they saw only the names of the bands and songs; or “social influence,” in which they were further divided into eight distinct “worlds,” and could see, in addition to the bands and songs, how many times each song had been downloaded by previous participants in their respective worlds.

There were three main findings. First, social influence increased the inequality of outcomes in all eight worlds, meaning that popular songs were more popular and unpopular songs were less popular than when participants made decisions independently. Second, however, which particular songs would turn out to be successful in any given world was more difficult to predict. And third, both inequality and unpredictability



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increased as the strength of social influence was experimentally increased. Overall, the “best” songs rarely did very poorly, and the “worst” songs rarely did very well, but any other outcome was possible.

These results suggest that the success of a particular product cannot be explained by any measure of intrinsic quality or even by “appeal”—the fit between the product's attributes and consumers' preferences. Rather, when people are influenced by what others think or do or buy, their individual choices interact in complicated and inherently unpredictable ways. In other words, experts fail to predict what will succeed not because they are uninformed or incompetent but because the success or failure is driven by complex networks of social influences that render accurate prediction of specific outcomes impossible.

The implication for IO planners and COCOM Commanders hoping to influence individuals or groups is that they should de-emphasize designing, making, and promoting the big IO efforts and programs and focus instead on creating portfolios of IO

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products that can be used based on real-time measurement of and rapid response to target group feedback. To move in this direction the following recommendations are offered:

1. Increase the number of “IO bets”, and decrease their size. Acknowledging the implications of this paper and our inability to predict success in a particular IO plan, we should be planning multiple IO efforts that are related and relatively modest rather than a few big IO plans.

2. Focus on detection, measurement, and feedback. We need to dramatically improve our ability to quickly measure and assess the trends of our IO efforts in order to use this important feedback to refine our IO efforts to achieve the desired effects. Without improved MOE assessment and feedback, we are operating without a “feel for the road”.

3. Follow through with flexible IO budgets and funding. The ability to quickly reallocating funding and resources from unsuccessful to successful IO efforts as indications of success for failure materialize is critical. Initial outlays should continue to be guided by prelaunch research, but we need to aim at broader target populations than that suggested by initial data and intuition. More important, we should direct post launch assessment resources at groups who are reacting positively to the IO effort, whether or not they correspond to our initial expectations.

4. Exploit naturally emerging social influence. Once an IO element has gained a successful reputation or good initial indications of success we need to be able to amplify the corresponding social influence signal by directing the attention of a much wider audience toward the individuals or groups who are already enthusiastic about it. This strategy differs subtly but importantly from word-of-mouth or viral strategies that seek to identify so-called influentials in order to solicit their endorsements. Instead, we suggest that IO planners can, in effect, create influentials by selectively modifying social influence patterns as they emerge.

Rapid changes in the technology of media production, distribution, and consumption are driving a proliferation of choices for potential insurgents – the so-called “long tail. Some believe that this trend will reduce the importance of any single group or faction as the diversity of media and Web access to ideas and information allow individuals to seek out and respond to messages that fit their preferences and predisposition to respond to or to find cause with.

Many believe, however, that precisely this proliferation of choice will further challenge potential insurgents or terrorists to discover and digest content, thus strengthening their tendency to like, or at least preferentially consider, what they think other people respond to. Meanwhile, social networking sites such as MySpace.com and Facebook, tagging sites such as Flickr and Del.icio.us, and user-generated content sites such as YouTube are increasingly exposing ordinary individuals to one another’s decisions about what they watch, listen to, buy, and believe.

Together, these trends point to a world in which successes will be more dramatic and also harder to predict than ever. IO planners and COCOM Commanders should therefore abandon the notion that they can either anticipate or determine specific outcomes and instead develop their ability to measure and exploit IO success identified from multiple small IO efforts rather than our current focus on big ticket mega IO efforts.

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